

The impact of research for implementation:

One of a series of case studies.

This is one of several case studies outlining the scope and impact of “research for implementation.” These were originally published in the report, **Bridging the gaps in malaria R&D: An analysis of funding—from basic research and product development to research for implementation.** It summarized the findings of a pilot study comparing this field to funding for basic research and product development.

The full report can be freely downloaded here: <http://www.malariavaccine.org/resources/reports/investigating-second-valley-of-death-malaria-rd>

Case study 6: Increasing access to new insecticidal products

THE PROBLEM

More than 80% of the reduction in malaria prevalence seen in Africa since 2000 has been attributed to vector control interventions—specifically, the indoor residual spraying (IRS) of insecticides inside homes and the use of insecticide-treated nets. Unfortunately, insecticide resistance is spreading and threatening this control.⁵³ New insecticide products need to be developed and used. Several third-generation indoor residual spraying (3GIRS) products are currently prequalified by the World Health Organization (WHO) for malaria vector control. However, the new products are more expensive; as a result, uptake has been slow, overall IRS coverage is low, and market stability remains a concern.

THE APPROACH

The Next Generation IRS (NgenIRS) project is a market-shaping initiative to expand the use of new IRS products in Africa. The project is designed to overcome five main conditions that create a challenging market: (1) limited demand; (2) market instability; (3) limited competition;

(4) high prices; and (5) absence of a strong evidence base that shows cost-effectiveness and impact.

The project provides copayments that reduce prices for national malaria control programs, thereby allowing them to increase the volume of product they procure. In addition, the project provides consolidated forecasts and volume guarantees to manufacturers to address volatility in the market, and the manufacturers have reduced prices in response to the greater certainty of demand.

THE IMPACT

Malaria programs and implementation partners have been able to procure more than 4 million units of 3GIRS as prices dropped from \$23.50 per unit to \$15.00 per unit. More than 1 million additional units have been procured by partners outside of the co-payment mechanism at a significant discount, in return for volume guarantees to manufacturers; this shows the extended impact of the market-shaping intervention.



© Innovative Vector Control Consortium, 2016. A malaria spray operator in a village in Rwanda talking to household members before spraying their home.

Programs increased coverage, protecting an estimated 15 million more people than would have been possible if they were paying full price. The improved market has supported WHO prequalification listing of new 3GIRS products; a second insecticide was included in the project in 2018 after prequalification listing in 2017. Two additional products are currently under advanced WHO evaluation. The inclusion of a second 3GIRS product created needed competition in the marketplace; it has also allowed malaria programs to invest in subnational rotation as part of their insecticide-resistance management strategies.

The evidence thus far from observational analyses in Ghana, Mali, and Zambia, along with a randomized controlled trial in Mozambique, have shown a 22% to 40% reduction in malaria cases attributed to IRS. Further outcomes of these studies will be disseminated through journal publications, conference presentations, and workshops with key country- and global-level stakeholders in 2018 and 2019.



© Innovative Vector Control Consortium, 2018. Spraying the walls of a house in a village in Ashanti Region of Ghana to control mosquito vector populations and minimize contact between infected mosquitoes and people.

PROJECT FUNDERS AND IMPLEMENTERS

NgenIRS country partners include Benin, Burkina Faso, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mali, Mozambique, Rwanda, Tanzania/Zanzibar, Uganda, Zambia, and Zimbabwe. Unitaid and the Innovative Vector Control Consortium have partnered with the US President's Malaria Initiative, Abt Associates, PATH, and The Global Fund to Fight AIDS, Tuberculosis and Malaria to work with industry and malaria programs in Africa to increase the uptake of 3GIRS products. The project is funded by Unitaid.